

# Rapport on my Leibniz Fellowship

I have been a Leibniz Fellow at Oberwolfach for three months from 4. September until the 2. December 2011, and I have found my stay to be very beneficial.

My main focus for the Fellowship has been a major revision of my thesis to get into a publishable state. For the first portion of my thesis I had to rework parts of the main constructions from scratch; this is now available as the preprint "The Cleavage Operad and Higher Dimensional String Topology". I have similarly been working on a second portion of my thesis, to make it publishable. However, some work still remains with the portion. I intend to submit both papers to the Oberwolfach Preprint Series.

The silence present at Oberwolfach has allowed me to work intensely at this, and I doubt that I would have been able to bring this research into such a satisfactory state, had I been positioned elsewhere.

My time as a Leibniz Fellow overlapped with that of Nora Seeligers, who also works in my field of Algebraic Topology. We have been discussing various problems and ideas of our common research, which has helped me not getting stuck. In general, I have enjoyed the social benefit of having other Leibniz fellows present here at the same time as me; hereby my encouragement that Leibniz Fellows come in bulk in the future as well, since it improves our social life to have someone more permanently around.

As an outreach activity I was invited to go to Science Days in Europa Park to tell German school kids about popular mathematics for three days. I found the arrangement succesfull, and a few days of nice break from the intensive research.

I sporadically attended lectures at most of the workshops; and I did find time to dedicate more time to the workshop on noncommutative geometry, the *arbeitsgemeinschaft* on affine algebraic geometry. The workshop in my field on homotopy theory got my full attention, and also included a visit by my advisor from University of Copenhagen, Nathalie Wahl. I have been in email contact with her throughout my stay, but having her visit me helped me keep on track with my project.

In the weekends I have been a frequent user of the local bikes, to go rock climbing in Offenburg and the surroundings. Having this option of mobility is a really good service to the long term visitors for their spare time, and I hope that this will be upheld.

I have very much enjoyed being taking so good care of at the institute, and I wish to thank the staff for doing such a dedicated job. Finally, I would like to thank nature for being a wonderful place to live in.